RESEARCH AT WELLESLEY means cell structure and an electron microscope to Miss Geraldine Gauthier, assistant professor of biology. Photo by Diane Edwards '70

Science at Wellesley Means Research, Flexibility, Change

by Betty Demy, Barbara Furne and Penny Ortner, all '69, and Susan Heineman '70

"To the young mind, every thing is individual, stands by itself. By and by it finds how to join two things, and see in them one nature. It presently learns that since the dawn of history, there has been a constant accumulation and classifying of facts. The chemist finds proportions and intelligible method throughout matter; and science is nothing but the finding of analogy, identity, in the most remote parts."
—Ralph Waldo Emerson.

To many persons at Wellesley, science, for better or worse, is one of the "most remote parts" of knowledge, or at least of the curriculum. In short, Wellesley seems to think it has a science problem. Yet according to Miss Anne Goodfield, Roberts Buchanan Treves professor in the history and philosophy of science, the problem is certainly not unique to Wellesley. It involves science itself.

"Only a few people," she says, "have minds so structured that they are dead keen on science. It takes a very special kind of person to be a good scientist. To be able to respond to the beauty in science takes a very special kind of mind, for it is the mind that can really feel a logical and mathematical intellectual neatness, so that one could say of a chess game or theory 'What a beautiful move!'"

She emphasizes that all of us are at least capable of understanding where the beauty can be found, and, importantly, that "man is not incapable of appreciating the whole range of the intellectual spectrum." This she concludes, "A prerequisite for solving many of the problems of 20th century society will be a recognition that so many of our intellectual boundaries are artificial and have been placed there by ourselves."

Yet Wellesley is in a period of tearing down boundaries, one of which is the line that has traditionally divided the humanities from the sciences. And with this comes the question: just what is science at Wellesley? and the answer: it is many things—it is the scientist, student or teacher, reaching into an area which he fruitfully and creatively embodies in his research; it is the flexible, ever-changing science curriculum; it is the trend toward interdisciplinary study; it is the possibilities offered by the College's affiliation with MIT.

The past three years have witnessed significant changes in, and additions to, the science curriculum. One of the first was the establishment of physics 100 three years ago as a prerequisite to courses in the physical sciences. Miss Phyllis Fleming, professor of physics, who teaches the course, feels that "it serves to build a background for further studies in science, and at the same time it is directed toward the humanities student who might to see the impact of one field upon another. One obvious impact in physics is that of philosophy." Miss Fleming adds that the greatest obstacle to teaching physics 100 is fear: "Students are scared to death of physics." She feels that pass-fail may alleviate this somewhat.

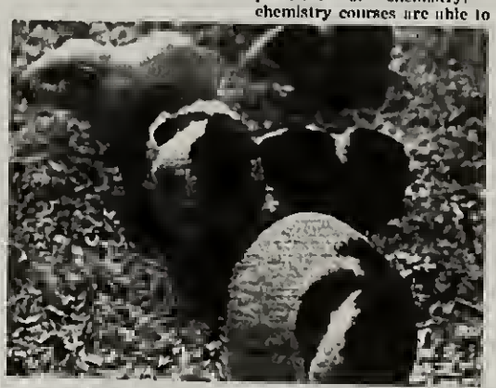
The institution of physics 100 as a prerequisite came at an unfortunate time, Miss Fleming feels. Even though it is not really relatet to the present science requirement, it is closely associated with it in the minds of students as it was initiated at the same time. Actually, in its own right it is a meaningful program that is now being studied by science departments at other institutions. The success of the course is indicated by Mrs. Emily Dudek, assistant professor of chemistry; "The chemistry courses are able to progress much more rapidly. The students come to the courses with a good background in atomic theory."

This year two changes have occurred in the physics curriculum. The first concerns the follow-up to physics 100. Students who wish to continue in the department in the second term will choose their course according to the amount of math they have had. The second addition also involves mathematics. In Term II assistant professor Walter Zimmerman will teach a course entitled "applications of mathematics in the physical sciences." It will offer students the calculus and harmonic analysis necessary for upper-level courses, eliminating the more theoretical material of the courses in the math department.

At the same time there have been major changes in the introductory biology courses, which now include biology of organisms (103), animal biology (105), and cellular biology (106). These changes were effected to present more opportunity and diversity in the introduction to biology, giving a greater flexibility of choice, and to make the best use of faculty training, and specialization.

The biology department has also revised its presentation of the introductory course. Instead of meeting for two lectures and one

(Continued on page 4)



GUINEA PIGS are among the less fortunate individuals involved in scientific research. Photo by Diane Edwards '70

WELLESLEY NEWS

Vol. LXI WELLESLEY NEWS, NOVEMBER 9, 1967 No. 9

Senate Extends Parietals, Senior Hours, Postpones Vote on Living-Room Visitors

Major legislation concerning parietals and senior late permissions was passed at Monday night's Senate meeting. Subject to three-fourths approval by students in a dormitory, that dormitory will have maximum parietals of noon until 10 p.m., Sunday through Thursday, and noon until 1 a.m. on Friday and Saturday. Senate approved no curfews for seniors, to go into effect in two weeks.

Late Permission Procedure

A senior who takes a late permission must return before 7:15 a.m. She will sign out on the regular white sign-out sheet; when she returns, she will go to the central reception center under the archway between Green and Founders Halls and will be escorted back to her dormitory in a campus security car. This proposal was submitted by Mrs. Eleanor Tenney, director of residence, as a compromise measure, as she felt that keys were economically unfeasible.

Visitors in Living Rooms

A proposal was made to allow visitors in the living rooms until 1 a.m. on week nights and 2 a.m. on Saturday nights (1 a.m. for freshmen), subject to three-fourths dormitory approval. To put this into effect, the quad dormitories would have to hire two more watchmen, at the cost of $5,100 per year, so that the dormitories could be left open until the specified hours. At present Pomeroy-Cazenove and Beebe-Shafer share one night watchman each.

Yet this plan does not seem feasible. Said College president Ruth Adams, "Quite frankly, I don't see where we'd get that money. If in fact we did have the money, I for one would rather see it go into additional peowl cars and another motorbike. With proper sympathy, avoiding a rape takes priority over promoting a friendship."

Thus before the system can be implemented in all dormitories, the quad dormitories must each have a three-fourths vote in favor of the inequity of being let into the dormitories with their visitors by a night watchman, while other dormitories will be open until the specified hours.

Other Senate Issues

Also on the agenda was the approval of a constitution for the Wellesley philosophy club and recognition forms for Tupelns and Madrigals. In discussion of the philosophy club constitution, the question was raised concerning which

(Continued on page 8)

NOW IS YOUR CHANCE ! !

Now that the Wellesley-MIT Planning Committee has mapped out general areas of consideration, they are eager to know about the interests and preferences of students to help them in making decisions about the exchange. For this purpose a questionnaire investigating which courses students want to take at what times, etc., will be distributed at both institutions on Mon., Nov. 13. The information from these questionnaires will be most valuable if Wellesley students have first consulted the MIT catalogues available in the dormitories, library, and deans' offices. Now is your chance to make your ideas and preferences known—complete your questionnaire and put it on your door by 9 a.m., Thurs. Nov. 16. Questions? call Stoney Wiske or Dee Swain or talk to your senate rep.

Panel to Discuss Kodak, FIGHT

A corporation executive, a sociological researcher, and a representative of the Black Power community will give their explanations of the Kodak-FIGHT conflict which rocked Rochester, N.Y., last year in an all-College panel discussion on "Community Action in U.S. Industry." They will also comment on how this conflict's resolution may affect other industries and community action organizations.

The discussion, which will be held in the Pope Room at 4:15 on Wed., Nov. 15, was organized by the Wellesley Civil Rights Group as a follow-up to its "exchange Kodak" campaign of last May.

Gregory Smith, president of Eastman Gelatin Co., the Reverend William Martin, chaplain at Dana Hall and Professor Gilman, who is a member of FIGHT and teaches at Rochester University, will serve on the panel, which will be moderated by Roger Johnson, associate professor of Biblical history. Martin researched and wrote a thesis for Harvard on the Kodak-FIGHT controversy and its sociological effects on Rochester last year.

Eastman Gelatin, a subsidiary of Eastman Kodak Corp., is located in Peabody, Mass. During CRG's "exchange Kodak" campaign last spring, Smith met and corresponded with CRG co-chairman Kris Olsen '69 and Johnson about the Kodak-FIGHT controversy.

Smith is a vigorous advocate of industry's responsibility to alleviate community problems, Kris emphasizes. "In order to get Negco employment in his Peabody (an all-white town) plant, Smith has been working with community action groups in Roxbury for some time," she says.

Kris organized this panel in hopes of clearing up some of the misunderstandings which CRG's "exchange Kodak" campaign accused last May. "Last spring everyone saw the 'exchange Kodak' signs plastered all over campus. As it was during exams, CRG did not have time to publicize what the campaign was all about, an so people had a tendency to assume we had 'leaped on the bandwagon' of another civil rights cause," Kris explained. "However, we did take care to meet with people other than FIGHT. (In fact, we really had no direct communication with FIGHT.) We met with Mr. Smith and Mr. Martin and tried to find out as much as we could from people in the area, as well as from press publications."

"Another purpose of the panel," Kris emphasized, "is to discuss the ramifications of community action in industry in general." If the outcome of the discussion is favorable, CRG might start working with other collegiate organizations and Black Power groups in taking further actions with specific industries in the Boston area later this year.

Focus on Science

With all of the uproar over science requirements, one might imagine that the sciences have no following at Wellesley, and that they are in fact undesired outcasts from the society of the liberal arts. As we have attempted to show in the feature articles which appear in this issue, the sciences are by no means second class departments here. On the contrary, they have a dedicated following and make a tangible contribution to the community of learning.

Despite the adverse image held by those skeptical scholars who bury themselves in the "humanities," the role of the sciences at Wellesley is a distinguished one; sciences offer opportunities for both faculty and students to pursue advanced independent work with exceptional facilities. As our interviews have revealed, the range of scientific research is impressive. Unlike researchers whose teaching load may be minimal at many larger institutions, researchers are also teachers here. Although they therefore have added responsibilities, they are nevertheless able to bring research into the classroom and bring students into their research as assistants or observers.

Among the welcome innovations that we have observed in the science departments is the molecular biology program, an interdepartmental major program. In light of the benefits that can be derived from an interdisciplinary approach to learning and the limitations that are often by-products of a rigid departmental system, it is hoped that further interdepartmental programs will be developed and expanded throughout the curriculum.

Interviews have been highlighted by the enthusiasm of science faculty for the Wellesley-MIT cross-registration program which holds exciting prospects for the sciences here, as well as for all other departments. It will be more than a number of girls going to MIT for a more expansive range of science courses; MIT students will also come to Wellesley to use advanced facilities that are not available to them as undergraduates at MIT. Also, fields such as environmental biology will no doubt attract researchers from MIT to Wellesley's natural facilities.

Big Freeze

"Oh, if only I had a refrigerator!" How many times does a Wellesley girl make that wish? Every time she craves fresh fruit, every time she wants a cool drink and the coke machine is out of order, every time she has slept late and she would like cold milk on her cereal: in other words, all the time.

Financially refrigerators on every floor are feasible. A large 330-watt refrigerator probably would not demand much, if any, rewiring, and the cost of running the refrigerator would be about $2.45 a month. Girls using the refrigerator would willingly pay an electric fee to help defray the cost. The individual dorms could easily work out the practical difficulties. For instance, they could limit the amount of food each girl could put in the refrigerator.

If a girl found that she wants to store more food than she is allowed, then she should be permitted to keep a small refrigerator in her own room. A 220-watt small refrigerator is well under the 500-watt limit for a single room and the 750-watt one for a double. In fact, it uses less electricity than a large 250-watt light bulb or a 350-watt hair dryer. Many girls will not choose to spend their money or use their limited wattage for the convenience of a refrigerator, but those who want to do so should have the option.

Mrs. Asa Tenney, director of residence, disfavors refrigerators in girls' rooms because "there is a certain level of luxury beyond which we should not go." Yet Wellesley students can enjoy in their rooms the "conveniences" of hair dryers, stereos, and, as of this year, televisions, which are no longer included among the illegal electrical appliances listed in the pamphlet, "Information for Students from the Office of the Director of Residence." Besides, if fresh fruit, cool drinks, and cold milk are "luxuries," what's wrong with a little luxury?

The Door Is Open

Many hours have passed between the 11:30 p.m. signout of two years ago and the 7:15 a.m. "curfew" instituted for seniors by Senate Monday night. And the door is now open: working within a maximum framework provided by Senate, the extension of parietal hours is to be the responsibility of each individual dormitory. Senate has thus escaped the laborious, fruitless discussions of "me and my roommate and my date" while making possible, theoretically, the satisfaction of the greatest number of students. Social regulations at Wellesley are, then, potentially liberal and Senate's action is highly commendable.

Inherent in Senate's success—in its ability to represent the desires of the students—was the responsible use of student referendum (i.e., the opinion poll solicited concerning parietals) and of recognized institutional channels. Senate has dissolved the mythical battle of "we the students" versus an amorphous "they" through compromise legislation.

Senate's limitations are obvious. At Monday's meeting the role of Senate on the issue of Vietnam was questioned both by Senate members themselves and by the SDS. And the discussion concerning Senate's jurisdiction in the academic realm continues. But the point is this: Senate has proven an effective institutional channel for change. Within this channel, which encourages meaningful dialogue among all campus elements, a great deal has been accomplished.

Senate's successful regulation of social change will not silence the clamoring for progressive academic revision. But its actions should serve to remind students how essentially potent the existing institutional channels can be. And Senate's success should emphasize the necessity to use these existing avenues as intensively and as possible.

WELLESLEY NEWS

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The Reader Writes

Att: Seniors

Ed. note: The following letter was sent to Nancy Kellogg, president of the class of 1968, on Nov. 7 in response to the seniors' petition to the Ad Hoc Committee. It is reprinted here with the permission of committee chairman Miss Helen Padykula.

Dear Miss Kellogg:

On Nov. 1 the Ad Hoc Committee received a petition from members of the class of 1968 with a proposal concerning the present system of Senior Major Examination. This petition was discussed at the Nov. 4 meeting of the Ad Hoc Committee.

Since the petition urges "the Ad Hoc Committee to present the proposal to Academic Council for immediate decision," it carries an implicit suggestion that a change in this portion of the curriculum be considered for the academic year 1967-68. However, the mandate given to the Ad Hoc Committee by the president and Academic Council authorizes exploration of problem and preparation of recommendations concerning required studies for the academic year 1968-69. In view of this, the Ad Hoc Committee has referred the petition to the Curriculum Committee, which is the proper channel for consideration of changes in the present curriculum.

We wish to assure you that the Ad Hoc Committee will also continue its study of 300 and the Senior Major Examination. We shall include a recommendation about this requirement when we present our proposal for the entire curriculum and calendar for 1968-69 to Academic Council in early December.

The Oct. 26 meeting with faculty and student representation from the various departments to discuss 300 and the Senior Major Examination was an especially valuable one for the Ad Hoc Committee. The discussion was vigorous, responsible, and informative. We are grateful to the many seniors who devoted considerable time and energy to thoughtful examination of the problems related to this requirement.

Sincerely yours,
Helen A. Padykula, Chairman
Ad Hoc Committee

Dow Protest

Ed Note: This is a reprint of a letter which appeared in the Harvard Crimson on November 2.

To the Editors of the Crimson:

We members of the faculty of Wellesley College, like men and women in all parts of the world, are morally outraged by the war in Vietnam. Students in many universities, including most recently Harvard, have expressed this sense of outrage by protesting the use of university facilities for job recruitment by representatives of such war-supporting companies as Dow Chemical Corporation, chief supplier of napalm. By their actions they have forced the issue of university attitudes toward campus recruitment by the armed forces and by such companies as Dow Chemical, and we as faculty members wish to join them in urging that universities refuse the use of their facilities for recruitment of this kind. We cannot endorse the use of force against recruiters, although we believe that in the particular case of the Harvard protesters of October 25 any punishment which impedes their academic progress would be excessive. We do, however, support their position entirely and call for all universities, including Harvard and Wellesley, to heed the call to conscience which has generated these protests.

Sigmund Abeles, Art
Leon Apt, History
Duncan Aswell, Eng.
Grazia Avitabile, Ital.
Mariam Berlin, His.
Sharan Cadman, Eng.
Elizabeth Conant, Bio.
Ann Congleton, Phil.
Helen Carse, Eng.
John Crawford, Music
Ward Cramer, Psych.
Fred Denbeaux, Bible His.
Jacqueline Evans, Math
David Ferry, Eng.
John Graham, Math
Laurel Furumoto, Psy.
Rene Galand, French
Edward Gulick, His.
Jean Harrison, Bio.
Walter Haughton, Eng.
Gabriele Jackson, Eng.
Owen Jander, Music
Florence McCulloch, French
Eleanor McLaughlin, His.
Jeanette McPherrin, French
Joan Melvin, Bio.
Genwarth Moffett, Art
Torsten Nasvig, Math
Barry Phillips, Eng.
David Prilzker, Math
Ruth Anna Putnam, Phil.
Jerome Reznier, Geo.
Margaret Robinson, Art
Patsy Sampson, Psy.
Alice Schafer, Math
Patricia Spacks, Eng.
George Stambolian, French
Richard Wallace, Art

Between the Lines

Anti-Hicks Vote Elects White

by Wendy Moonan '68

As Cleveland opted for Stokes and Gary for Hatcher, Boston endorsed its brief flirtation with Louise Day Hicks and took Kevin White for mayor. Common sense might have indicated such results, but no one would have put money on any of these candidates.

At least a six-hour vigil Tuesday at the polls convinced me that forging White's victory as the triumph of reason over racism or brains over brawn is too simple. Nor am I sure that the Hicks phenomenon will soon die. Perhaps a couple of observations will illustrate this.

I was poll-watching for Tom Atkins in Jamaica Plain, clearly Hicks country: a lower class, deteriorating Irish neighborhood right next to Roxbury. I stood in the rain with seven people from the local precinct, of whom five were Hicks' backers. The polls predicted that the rain would hurt White, because the undecided voter whose support was crucial to him, would not bother to vote. I feel that perhaps the fierce determination and dedication of the Hicks "Longshorewomen" at the polls and in coffee trucks simply showed that the rain and bitter cold might scare White's supporters but not Hicks' people, many of whom were old and too poor to have cars to drive to the polls. This is not to say that White's campaign lacked elan, as some have said; it is simply to show the difference of degree of dedication aroused by the two candidates.

Another short encounter with a Jamaica Plain drugstore owner may explain the dedication further. The owner, once a state representative and friend of Kevin White's father while he was mayor, claimed he would vote for Mrs. Hicks. Now out of office, he runs a store with his adult daughter. It has been robbed seven times in the past six months. Once the daughter was almost gunned down. Another time, making up prescriptions in the rear, the owner heard the cocking of a rifle and slipped out the back to get the police while the store was robbed up front. Monday night five handbags were snatched within 100 yards of his corner. This owner is a hard man, but he is getting scared. He is convinced that Louise is tough enough to protect him by giving the police back their power to enforce the law.

A survey of the Atkins supporters Tuesday revealed another interesting aspect of the campaign: the generation gap. It was shocking to notice that the people who were responsible for the election of a Negro to the city council were all under 30 and predominantly students, outside the Boston electorate, to say nothing of the city's machine. A quick visit to White's victory celebration at the Sheraton Plaza showed that his support was equally young. The two candidates did not simply project different images; they projected to different ages.

Finally, without belaboring the point, one could almost say (albeit with some relief) that the election was one of "survival of the fittest." It downed the old and infirm, both physically and intellectually. If the election insured racially balanced schools and served to keep Boston in the 20th century, it was a passionless victory. Idealists may have voted for White, but the anti-Hicks sentiment elected him. Tuesday night at the Sheraton Plaza, in front of the "All Stars" of the Boston Establishment, Edward Kennedy, Governor Volpe, John Sears, and Kevin White, it was Mrs. Hicks' arrival that drowned Ted Kennedy's speech and elicited, ironically enough, the warmest applause of the evening. At least with Mrs. Hicks, you knew where she stood. I tend to agree with her brother, John when he said, "There is still a place in Boston for Louise Day Hicks and we intend to take it."

Interested in Europe?
A representative from the Netherlands Foreign Student Relations (NBBS), a non-profit organization which sponsors VW bus tours of Europe for college students, will be in Billings at 7:30 Mon., Nov. 13, to talk to interested students about the tours and to show films and slides. For further information call Jane Michaels, Claflin, 235-6951.

AN UNIDENTIFIED student at the University of Iowa demonstrates his determination to have his scheduled interview with the US Marine recruiter. Photo credit LNS

Protests against Dow Erupt on Campuses; Students Block Activities of Recruiters

Ed. Note: The following is a summary account of recent student demonstrations against on-campus job recruiters representing organizations involved in the Vietnam war effort:

♦ On Oct. 19 at the University of Wisconsin riot police broke up with clubs and tear gas a peaceful demonstration against a recruiter from Dow Chemical Co., supplier of napalm to the government. Daily protest rallies drew 2,000-8,000 students. Dow left the campus; the CIA cancelled its scheduled recruitment.

♦ Approximately 300 Harvard and Radcliffe students sat-in at Mallinckrodt Hall on Oct. 25, holding captive for 7 hours Fred Leaviti, a Dow recruiter. Amidst controversy as to selectivity and severity in punishment, the University put 74 students on probation and admonished another 171.

♦ The Nov. 2 Crimson reported that a faculty-student-administration committee, the first of its kind at Harvard, will be created in the near future to study some of the issues raised by the Dow sit-in.

♦ At the University of Maryland a campus official dispersed an Oct. 30 sit-in against CIA recruitment by reading the Maryland Trespass Act.

Another sit-in at Maryland on Nov. 2 broke up after threatened arrest.

♦ A group of 20 Brown students prevented a CIA representative from conducting job interviews on Oct. 31.

♦ On Nov. 1, 180 University of Iowa students were arrested for blocking the entrance to a building in which the Marine Corps was recruiting.

♦ Two-thirds of 2175 Columbia students responding in a poll voted in favor of open on-campus recruiting by governmental and private organizations.

♦ A letter, printed in the Nov. 2 Crimson signed by 38 Wellesley Faculty members "mutely outraged by the war in Vietnam," although not condoning use of force against recruiters, supported the position of the Dow protestors and "joined them in urging that universities refuse the use of their facilities for recruitment . . . by the armed services and by companies such as Dow. (Their letter is reprinted on pg. 2 of this issue).

♦ Wellesley SDS participated Monday in a demonstration against Dow at MIT.

Wellesley Attends MIT's Dow Sit-In

by Sue Ellen Taller '68

In protest against university involvement with the war, Wellesley students and faculty joined MIT's sit-in against the Dow Chemical Company on Mon., Nov. 6, in the MIT placement office.

The sit-in began at 9 a.m. and continued until 4 p.m. Participants voted to allow passage of the recruiters and students seeking information about Dow. It was hoped that the presence of students with placards in the hall would remind the MIT administration of its responsibility to prevent skills developed by a university from being put to a destructive use.

At noon a committee of MIT faculty announced about MIT's social responsibility presented a program entitled "Napalm, Vietnam, and the University." Speakers included Howard Johnson, president of the MIT Corporation, Max Key of Dow, Frank Ervin of the Harvard Medical School, and MIT faculty representing different stands on the relationship of MIT to the war. Wellesley students and faculty who attended the meeting were introduced to a complex issue: the mutual dependence of MIT and the government.

Problems which arise from this involvement are those of "classified" research and theses, where information pursued at a university is denied to the community. In addition, MIT possesses the tenth largest Defense Department contract, making it dependent upon the military policy of the Johnson administration. An overwhelming majority of MIT Corporation members are executives with positions within the military-industrial complex.

Many of the problems bothering students at MIT and Wellesley will be discussed in an open forum presented by Room 7 and SDS: "University Complicity With The War In Vietnam." The forum will begin at 4:15 on Fri., Nov. 10, in Room 6. MIT SDS has published a pertinent pamphlet entitled "MIT and the Warfare State," available at the SDS table in Founders for 15 cents.

FACULTY INVITATION

In order to promote a better understanding of *News*'s role in the College community, the editors of *News* extend an open invitation to all faculty to attend our staff meeting and to participate in a discussion of *News*'s operations next Tuesday, Nov. 14 at 4:30 p.m. in the *News* Office, Green Hall.

Faculty who plan to attend should contact Susan Spreu (235-7468).

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MIT Prom Names Kilburn Its Queen

With plans for cross-registration with MIT still in the discussion stage, less academic, if not any less official, ties are growing all the time, as is evidenced by the selection of Linda Kilburn '70 as Junior Prom Queen last weekend.

Competition for the title of honor in a weekend featuring the Lovin' Spoonful and Chuck Berry was, if not fierce, at least stiff. Seventeen fraternities and dorms entered their candidates as semi-finalists. Photographs were then displayed, and all undergraduates were able to vote for their choice.

Sweetheart of Sigma Chi

Linda, Sigma Chi's choice, and the other six highest-scoring finalists, met with the Junior Prom Committee on Fri., Nov. 3, the night of the prom. They assigned her an escort who interviewed her with "typical mixer-type questions" about her major and interests for 10 minutes.

While the finalists paraded up the line with their dates, the committee deliberated and then announced their choice. When Linda realized she "Melinda "Kilburn was, she was robed, rosed, crowned, and then led off the first dance, followed by her court and then the rest of the crowd at the Boston Sheraton.

"The best part was meeting the other girls," declared Linda, although she expressed regret at not having had more time to talk to them. Of the honor and excitement, she concluded, "It just made a wonderful weekend that much better."

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Science Departments ...

(Continued from page 1)

laboratory, students now attend one lecture, one discussion meeting, and the lab. In the labs each girl works at her own pace, receiving instruction primarily from an audio-tape with the aid of a faculty supervisor.

Many of the courses that have been recently added to the science curriculum project a new trend in presentation. The approach and purpose seem largely interdisciplinary and there is noticeably less emphasis upon specialization. The most encompassing of these programs is the new major in molecular biology. This field has combined both chemistry and biology majors and is particularly valuable to the pre-med student. Yet another interdisciplinary course, a seminar entitled "mind and matter," will be offered by Miss Goodfield and Mrs. Jean Mannson, assistant professor of biology, in Term II.

These additions to the curriculum have been highlighted by Miss Goodfield's existing interdisciplinary course, extradepartmental 221, although this has never been regarded as part of the science requirement, unlike Miss Webster's history of science course. Established as a special lecture course, 221 proposes to give students "an exposure to the critical turning points in scientific thought as they exist in the 20th century."

Miss Goodfield explains there are two philosophies behind the course. The first is determined by the rationale which led to the establishment of the course: it is designed to give students in their junior and senior years an exposure to these critical turning points in science. The second philosophy depends more significantly upon Miss Goodfield's personal approach: she has to decide what constitutes a "turning point," and then to determine its relevance and significance.

She adds, "The other thing I wanted to do was to give some indication of areas which I find wildly exciting—for example, the problem of building a theory of human understanding. This is going to have to take into account neurophysiological effects, philosophy, and psychology." This essentially involves an interdisciplinary synthesis.

Further, Miss Goodfield has tried to give a feeling for the wider implications of science in 20th century society, politics, philosophy, and theology. "In the 20th century situation," she says, "it is terribly important for people to have the exposure to the scientific method and the liberal science. Politically, for instance, it will matter more and more. As that proportion of G.N.P. spent on science increases more and more, it becomes vital in a democratic society that the citizens are able to appraise both scientific issues and judgements about science policy in an informed fashion. Because to study it at its very mercenary lowest, they are going to have to pay for it."

Miss Goodfield also assesses 221 in terms of the situation at Wellesley. She realizes a problem is getting students "over the psychological hump" that inevitably exists concerning science, although not everyone has the "intellectual fidgets" about the physical world. And yet the hump exists, and must be overstepped in an institution designed to give a liberal arts education.

It seems probable that the forthcoming cross-registration with MIT will play a significant part in research and in the science curriculum at Wellesley, and members of the science faculty stress the advantages of the program for both schools. "Some people think that this will be a one-way street," asserts Helen Putnam, professor of biology and chairman of the department, "but I don't believe so." MIT students will be able to use material which is not otherwise available to them on an undergraduate level; for example, an advanced course in electron microscopy such as is available at Wellesley, is not usually opened to undergraduates in biology; moreover, the Wellesley campus is an ideal field laboratory for environmental biology.

Other members of the science faculty stress the mutual advantages of the program. Robert Shrop, assistant professor of biology, emphasizes that there was "never any question about either sides' abilities." Assistant professor of chemistry Thomas Wagner feels that in order for the program to be successful, it must take place on a very large scale. He feels that it could even affect applications in Wellesley. "The woman who wants to go into science," he says, "is really a dedicated scientist. Yet she will probably not go to MIT or Cal Tech because she is also a normal girl. She will go to Berkeley or Stanford, settling for the next best technical education in order to live in a civilized society." Wagner estimates that this involves 85 percent of the women really interested in science alone. "Perhaps," he adds, "we could attract this 85 percent who could live at Wellesley and take courses at MIT."

But nowhere is there any indica-

(Continued on page 7)

A SPRAY of delicate orchids greets visitors to the Wellesley greenhouse. Photo by Jenny Cook '69

Flower Power Grows on Sage Hill; Greenhouses Boast 500 Floral Species

Wellesley is one of three undergraduate colleges in the United States to have its own greenhouse facilities. The Margaret C. Ferguson greenhouses, adjacent to Sage Hall, were built for students to "work in, be provided with material from, and just see," says Miss Harriet Creighton, professor of botany and director of the greenhouses.

Study and Exhibit

Arranged in four rows, in the shape of a capital 'E,' the houses include space for students' plants; faculty, graduate, and honors research; and exhibits of vegetation native to different climates throughout the world. For instance, there are rubber trees and pineapples in the tropical house, papyrus and bamboo in the moist temperate house, and a rustic wooden bridge and velvety mosses in the Mabel A. Stone Memorial Cryptogam House.

There are about 500 species of flora in the greenhouses, reports Miss Creighton, and new plants are constantly being grown in the propagating house to replace materials used in classes.

Open Every Day

Despite the fact that the greenhouses are open 8-5 every day of the year, only about 10 to 12 faculty members and 10 or 15 students visit regularly.

"There's always something flowering," said Joe Jennings, one of the three gardeners employed in the houses. Right now chrysanthemums are in bloom and soon the poinsettias will be flowering. "They're not something you just see once," said Miss Creighton. "You can come back and see other flowering plants all the time. The College community and the public are welcome, because the greenhouses are considered a public facility of the College."

Original Plans

Smith and Mount Holyoke are the other two undergraduate colleges with greenhouses. All three greenhouses were built at approximately the same time; Wellesley's opened in 1923.

The location was chosen not only because it is on a sunny hill, according to Miss Creighton, but also because in the original plans for the College, Henry Fowle Durant chose the site for the construction of what he called "a college of natural history."

Spring Exhibits

In addition to decorating the chapel for Christmas, Easter, and Baccalaureate services, plants from the greenhouses are exhibited each year in the Massachusetts Horticultural Society's spring flower show in Boston.

Theatrical Notes

Wellesley College Theater will sponsor a make-up workshop on Wed. Nov. 15 from 7:30 to 9 p.m. in Alumnae Hall. Anyone interested in learning basic theatrical make-up techniques is encouraged to attend, and a special invitation is extended to those who would like to work on make-up for Barn or ET. Questions? Contact Liz Shippee in Pomeroy.

• • • •

Try-out readings for the ET production of William Saroyan's The Cave Dwellers will be held Mon. Nov. 13 from 4 to 7 p.m., and Tues. Nov. 14 from 3 to 4 and 5 to 7 p.m. in the Director's Office, Alumnae Hall. Cattbucks will begin at 7:30 p.m. Wed. Nov. 15 in the Jewett Rehearsal Room. The play, which will be directed by Ginny Hammonds, assisted by Cheryl Wootton, will be produced January 26 and 27.

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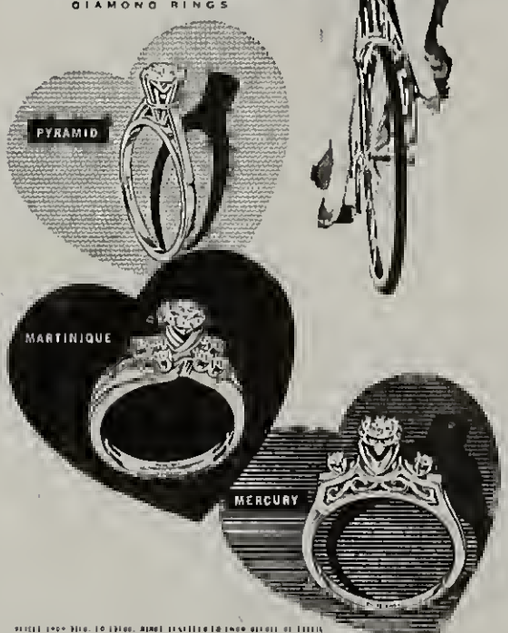

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The Reader Writes More . . .

Sound of Music

To the editor:

I want to share my impressions from last night's performance of Julian Bream. It had magic in it, both the selections and—especially and—the performer. He has a sweet, candid, yet shy, almost child-like personality, the kind that only people who live music may have—and very few even of them do. As he played, especially the lute, his head was bent over so low behind it that all you could see was the instrument, his hands, and the sweet top of his head, almost completely bald, moving and bobbing in accord with, not the rhythm, but the emotion that the particular piece held for him. And when you did see his face it was all emotion, almost distorted, but moving on and changing with each new chord. He was not aware of it, he just was not there in the hall while he played. And after he finished he would smile to the applause, suddenly all there, then say a few words about the next piece. Then the magic would start again. The audience responded beautifully. The large hall absolutely filled—yet the silence was absolute.

Someone said: "Every man must have a kernel of stillness within himself, surrounded by silence." That is what this concert was. The music was the absolute, beautiful stillness, and the silence around it was so complete that you felt the stillness stand out like an altar.

To end with another quotation, this one from T. S. Eliot: "music heard so deeply that it is not heard at all, but you are the music while the music lasts." Stillness, surrounded by silence.

Mrs. Irina Lynch
professor of Russian

College Scrutinizes Security

The safety and well-being of students on college campuses is rapidly becoming one of the major problems confronting American universities. In an effort to prevent the recurrence of incidents such as the recent assault of a student, Wellesley has made several safety improvements.

More patrolmen are assigned to areas where students are most apt to need protection. After dark the blue lights on the patrol cars are all always shining, in order to inform students of the presence of patrolmen in an area. The lighting on campus roads and footpaths has practically doubled.

Fence and Scooter

A three-wheel scooter is used to patrol the paths which are not accessible in a car. The department of safety and security has also constructed a fence along Fiske Path. The fence discourages prowlers from entering the campus.

Charles Hapenny, former Marine Corps officer, is guiding the efforts to improve security. He holds the newly created post of supervisor of safety and security. His part experience includes supervising the security system in an American Embassy.

Safety Guidelines

According to Hapenny there are several ways in which the students can reduce dangers to their own well-being. "Whenever possible, walk in groups of two or more. I have noticed that many girls walk alone after dark. This is a dangerous practice," he said.

Hapenny cited hitchhiking as another dangerous practice. After talking to several hitchhikers, who claimed that they were hitching because of the unpredictable bus service, he is trying to make certain that busses do run on schedule. Hapenny stressed the fact that hitchhiking is illegal in Massachusetts. The department also advises against riding bicycles without lights.

The Security and Safety Department has six full-time police officers and several part-time officers for special occasions, such as mixers. Extra police work each weekend. Most of the patrolmen are men in their early fifties, who have had previous experience protecting people.

Forum Needs Transportation

Forum would like to provide transportation for people to attend lectures in Boston — such as the Ford Hall Forum lecture series and the Harvard Law Forum — and to hear speakers such as Ayn Rand, Pete Seeger, Saul Alinsky, and Ramsey Clark. People with cars who can take other people should call Leslie Reid, 235-0054. The El Table will have further information. Bulletins listing forthcoming lectures will soon appear.

Chamber Music Group to Give Concert; Ensembles Feature Telemann, Schumann

Works of Franz Joseph Haydn, George Philipp Telemann, and Robert Schumann will be featured in a concert presented by the Wellesley College Chamber Music Society on Sun., Nov. 12, at 8 p.m. in Jewett Auditorium.

The program includes a variety of instrumental ensembles. The Haydn "Sonata in F Major," originally for flute-clock (a mechanical organ) is transcribed for two flutes and two clarinets; his "Quartet in B flat Major," Op. 76, No. 4 ("The Sunrise") involves the standard foursome of two violins, viola, and cello. Telemann's "Trio Sonata in C Major" is scored for two recorders, cello, and harpsichord. The "Six Canonic Etudes," written by Schumann for the pedal piano, have been transcribed by Debussey for two pianos.

Performers will include Carol Pratt '68 and Felice Gaer '68, flute; Janet Morgan '70 and Barbara Reeves '71, clarinet; Janet Parker '70 and Nancy Miller '70, violin; Catherine Helffitz '71, viola; Elizabeth Yeagy '68 and Irene Wang '69, cello; Virginia Blankenburn '69 and Cynthia Snyder '69, recorder; Martha Hughes '68, harpsichord; and Kathleen Winslow '68 and Kristin Djos '68, piano.

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Science Departments ...

(Continued from page 4)

tion that all Wellesley science will eventually be taught at MIT. Mrs. Janet Guernsey, professor of physics, feels that we will find cross-registering in both directions in science as well as in the humanities. "Many of the courses," she says, "are not vastly different—the large difference is that the students here get a lot of special attention." Mrs. Dudek adds that the MIT undergraduate may benefit particularly, and while it is certain that the MIT faculty is top-notch, "they don't have all the ideas."

In biology, the exchange with MIT has specific possibilities. Mrs. Elizabeth Conant, assistant professor of biology, suggests that "the area where Wellesley can serve MIT is in the study of the 'whole animal.'" At the same time, "the MIT approach is best geared to the girls in the molecular biology program." Miss Padykula agrees that "while we complement MIT in organismal biology, they will strengthen our program in molecular biology."

Although MIT research facilities will hopefully be available for Wellesley researchers, the College is not lacking in complex, delicate, and highly modern instruments, including the electron microscope acquired in 1964 and the new 24-inch telescope. Nor does this equipment lie idle. Both members of the science faculty and Wellesley students are engaged in interesting and original research in their specialized subjects, and several Wellesley professors are noted authorities in their fields.

Thomas Wagner is involved in chemical research on the mechanism of enzyme action in the life process. He is interested in the "kinetic aspects that enzymes represent," and is trying to learn how the enzyme fumarase uses chemical and physical principles to work.

Wagner and the eight students working with him have investigated the structure of the enzyme, in particular, its "active center." Wagner encourages student research on an undergraduate level, but he admits that there are problems of "limited time" and the fact that "the advisor has to be around." He receives financial backing from Wellesley and finds that applying for outside aid, such as a grant from the National Institute of Health, is a "tremendous project." Last year he published an article in Biochemical and Biophysical Research Communications jointly with two of his pupils, Mary Charleson '68 and Hunh Chai '69. He adds that the demands of publishing precede those of applying for a grant. Wagner's field is very competitive, as his is "one of the first three enzymes to be studied in this manner."

James H. Laflin, assistant professor of chemistry, is interested in crystallography and the solid state problem in relation to a series of compounds consisting of chloroform solvates of tetra-alkyl ammonium halides which he discovered. Laflin wants to determine the structure and bonding strength of these compounds.

Mrs. Dudek, an inorganic chemist, is tackling the problem of the structure and nature of coordinate bonding in metal cubides. These are compounds containing transitional metals, such as copper, nickel, cobalt, or zinc, bonded to an organic base. How the base is arranged around the metal and how tightly bonded the base is to the metal are two of the important questions to be answered.

Mrs. Dudek has three senior honors students and one graduate student working with her on this project. "Wellesley has been generous to our department," Mrs. Dudek stated when asked about the funds for her research. She added that the "department itself has had support from NSF under the Undergraduate Research Participation Grant (URP)," and a Petroleum Research Fund Grant has enabled her to hire two students each summer for research.

Miss Elizabeth J. Rock, professor and chairman of the chemistry department, who was engaged in research at Oxford last year on an International Science Foundation Fellowship, plans to continue her study here. She is trying to determine the free energies and entropy (thermodynamic potential) of a constant temperature of solid solutions. The differential calorimeter which she used was designed by the scientist under whom she worked at Oxford. She is planning to build a similar instrument here. Although at present she has no student assistant, "I would hope that one I get into it, I will have students," Miss Rock stated. She is pleased with the summer research program at Wellesley and hopes to see it continued.

A movie is being made in the physics department! Miss Judith C. Brown, an assistant professor, and Mrs. Janet H. Guernsey, professor and department chairman, are planning a film about optics and laser patterns, "primarily for its educational value." It will be presented at the American Association of Physics Teachers Competition, to be held in Chicago in January. The film-makers bought the needed equipment from department funds.

Mrs. Guernsey finds that "Wellesley offers time and equipment for research." She mentioned that the faculty are also involved extensively in scientific organizations. Members of her department have served as officers in such organizations as the American Physics Society and the American Association of Physics Teachers.

Research combining physics and higher mathematics is being undertaken by Walter Zimmerman. Referred to as the "many body problem," his study is concerned with the properties of a system of many particles. In particular, Zimmerman is interested in the thermodynamic properties, pressure-volume-temperature relationship, and the "transport properties," such as thermoconductivity.

This research will, at one stage, involve the use of an electronic computer, which he hopes the College will soon acquire. From a physics viewpoint, the problem has applications to the physics of crystals and of liquid helium.

Standing alone on Observatory Hill, the astronomy department is not always "lost in space." Professor and department chairman Miss Sarah Lilly is engaged in down-to-earth research in her current field of interest, photometry, a branch of astronomy which measures the brightness of the stars to provide valuable information about their age and evolution. With funds provided by an NSF grant, Miss Hill has acquired a photometer, which in addition to the new telescope, has been helpful in her work.

Mrs. Martha H. Liller, a part-time lecturer in the astronomy department, is doing research on planetary nebula--enormous, star-centered bubbles of gas in space. She is trying to discover whether these gaseous masses are expanding, but because of their distance from us, accurate measurement is difficult, and she must frequently use pictures taken as many as 50 year ago.

The department also plans to participate in an international program to study the surface of the moon. As Miss Hill explained, "the moon has been the subject of speculation throughout many centuries and until recently there has been no objective evidence to verify these conjectures." An international network of observers has therefore been established, with each station assigned certain areas of the moon for surveillance. A communications system borrowed from the Smithsonian Institute will alert other watchers within three minutes of a discovery by the Wellesley station. Miss Hill foresees an active role for the College in this experiment, especially when MIT faculty and students begin using the observatory.

SCIENCE MAJORS	1968	Senior Honors	1969
Astronomy	3	1	2
Biology	31	5	13
Chemistry	5	5	7
Geology	1	1	1
Molecular Biology	3	2	7
Physics	3	1	1

The laboratories of the biology department are found on almost every floor of Sage, and a visitor in the building will invariably find a bifurcated biologist at work.

Many of the professors in the department are doing research with the aid of government grants. Assistant professors Miss Gauthier, Mrs. Harrison, and Mr. Shoop, and professors Mrs. Fiske and Miss Padykula, chairman of the department, are all participating in research programs supported by the government.

Mrs. Virginia Fiske, who is an international authority on the regulation of endocrine secretions, is currently investigating the effects of the environment, through the nervous system, on endocrine secretions in mammals.

Miss Geraldine Gauthier and Miss Helen Padykula have collaborated on research concerning the differentiation of mammalian skeletal muscle and the localization of enzymes in situ. Miss Padykula is also studying the cytology (the study of cells, their function, structure, and pathology) of the placenta in various mammals, including the opossum. The development of the opossum is of particular interest because its gestation period is very short and the newborn is relatively undifferentiated.

Miss Gauthier is working on two projects, both concerned with cell structure and cell chemistry. She is studying red and white muscle fibers (for example, what we commonly known as white and dark meat in chickens) to discover what structural difference means in terms of function. Her second project concerns the absorption of fats into the intestine of various vertebrates. In this phase of her research Miss Gauthier tries to relate structures in the cell to absorption activity in order to gain an understanding of such activity in the human system. Mrs. Janet Smithson, a new biology instructor, does research with Miss Gauthier. She is involved in structural-functional correlations in the liver and intestine of the goldfish.

Miss Elizabeth Conant is studying the African lungfish, which possesses both lungs and gills and is capable of living in mud at a reduced metabolic rate when its water habitats dry up. Miss Conant is investigating the behavior and physiology of this fish and is seeking an effective means of making long-term cardiographic records of the fish under varying conditions.

Mrs. Harrison is conducting neurophysiological research in two areas. The first relates to the auditory system in birds, specifically the response to pure tone pulses of various tracts in the pigeon brain. Her second project deals with the peculiar behavior of the male wolf spider during courtship.

Additional department research includes a study of differentiation in the developing nerve centers in the chicken embryo by lecturer Mrs. Alice Jones. Mrs. Joan Melvin, an instructor who is also dean of sophomores, is working on a study of mammalian liver generation and controls of cell division. She is using primarily autoradiographic techniques.

Robert Shoop has investigated the orientation of migrating salamanders and is now conducting studies to define the abilities and sensory mechanisms involved in orientation. Shoop is also experimenting with levels of tolerance to radiation in the salamanders, in hope of finding a basis for tagging migrating animals with radioactive materials.

The environmental factors and incidence of tumors in the fruit fly are being examined by Mrs. Louise P. Wilson, professor. Another professor, Miss Harriet B. Creighton is studying the developmental morphology of an inherited growth of plantlets on the leaves of certain begonias.

Mrs. Delaphine G. Wyckoff, professor, is conducting research in the field of microbial ecology. The habitats of many microorganisms are being altered not only by the physical aspects of their environment, but also by man's technological developments which may bring about long-term destructive changes in the natural environment of these organisms. Some of the areas of investigation are the shifts of microbial populations in polluted waters and the tolerance of certain organisms to chemical pollutants in water or soil environments.

A new instructor in the department, Philip C. Bibb, is conducting research in the development of pigmentation in the flower petals of the balsam. His present investigation concerns the elucidation of certain aspects of inhibition in the normal pattern of pigmentation.

Mrs. Conant, also from the biology department, sums up the value of student-faculty research. She said that faculty who are researching and students engaged in independent work can taste research "done under an academic umbrella." Students learn in much greater depth with "research in the guise of the independent courses: 290, 350, and 370."

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Pro Musica Will Present Play of Daniel

The Play of Daniel will be presented in Houghton Memorial Chapel on Tues., Nov. 14, at 8 p.m. The New York Pro Musica will perform the 800-year-old musical drama. The performance is made possible through the Marjorie Copland Baum Fund.

The Play of Daniel was created by students in the abbey at Beauvais, France, sometime in the twelfth century. It recounts two episodes in the prophet Daniel's life—the reading of the handwriting on the wall and the survival in the lions' den.

History of Play

In 1958, the late Noah Greenberg revived the drama at the Cloisters of the Metropolitan Museum of Art in New York. It had not been performed since the Middle Ages. Since its first performance in New York, the play has become an annual Christmas event.

Sung in Latin and Old French The Play of Daniel is accompanied by narration in English verse written by W. H. Auden. The production uses such medieval instruments as the zinke, rebec, shawm, sackbut, regal, and krummhorn according to Time magazine.

Pro Musica Tour

This is the first cross-country tour in many seasons for the New York Pro Musica. In 1960, The Play of Daniel was presented in Europe at the Bath Festival, Westminster Abbey, Spoleto, St. Germain des Pres, and the Florence "Maggio Musicale" under the auspices of the State Department. Recently it has been performed at the University of Chicago's Rockefeller Chapel and the Washington Cathedral in Washington, D. C. Last year the play was televised over National Educational Television.

The New York Pro Musica's company includes six regular soloists, four instrumentalists, the boy choristers from the Church of the Transfiguration, and additional actors and singers.

On the level, Mr. Chairman...

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October 10, 1967

Dear Mr. Galvin:

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Last year's program caused a great deal of comment and praise because it touched the imagination of both students and faculty. A need for dialogue and an open expression of ideas was acknowledged. It was truly exciting that an important businessman was sincerely willing to discuss the issues.

Unfortunately, a prevalent criticism was that the student seemed too stiff and formal. Hopefully, by presenting a more informal forum, I will lessen my malaise and be more effective.

Probably this lack of respect toward business can be traced to the methods and types of advertising that bombard us from all sides. It seems that whether it's a car or toothpaste, the product is sold by means of sex. Why can't business promote more tasteful advertising that sells a product by its own merits, rather than by appealing to the base instincts of society?

It seems that many graduating seniors are unimpressed by the recruiters sent to campus. Others are soured on business by what they felt was a useless summer training program. Still other graduates have no desire to enter a two or three year training program that, in some companies, turns into a survival-of-the-fittest course.

There is a feeling that business is tied up by its own hierarchy. Researchers have found that large organizations are producing increasingly dysfunctional behavior. The student feels that to enter a structure so regimented would offer a small chance for success and big chance for poor mental health.

Business seems to project a dull image—the comfortable job, the comfortable family, the comfortable punching of the clock.

This does not appeal to the idealistic spirit of the American college student. The men that challenge him today are not the "captains of industry," but rather the "midshipmen of government"—the young Jack Kennedy or the young Charles Percy.

The student's attitude is not anti-business, it is just that so many more occupational opportunities are open—more so than at any other time. For a career field to capture the imagination of today's college student, it must be exciting, personally rewarding, and carry a measure of individual responsibility.

There is much to discuss and I am eagerly awaiting your reply.

Sincerely,

Fred W. Sayre

Fred W. Sayre

Last week this paper carried a letter from Motorola Chairman Robert W. Galvin, in which he asked Mr. Frederick W. Seyre, a government major at the University of Arizona, for his views concerning business. Mr. Seyre accepts the invitation, and subsequent correspondence between him and the Motorola chairman will be published in this paper. ☐ The debate is part of a continuing dialogue between Mr. Galvin, speaking as a businessman, and a number of college students presenting the campus viewpoint. The exchange of views was initiated last year in college newspapers as a step toward better understanding and mutual respect between campus and corporation. This year, in addition to publication in campus newspapers, other dialogue discussions are being aired over 35 college radio stations.

ET Presents Imaginative 'Bald Soprano'; 'Chairs' Tedious Despite Excellent Acting

by Anne Carter '68

The two Ionesco theater of the absurd plays, put on by Experimental Theater last week-end drew good audiences. The Bald Soprano, an anti-play about the lack of communication between people and the fotuity of the British bourgeoisie, came across very well.

The play opens with Mrs. Smith, whom Denise Koen '69, played with a good deal of effective facial expression and a fine exploration of the comic possibilities of the role. She sits and pairs up ridiculously odd socks, talking at great length about what they have had for dinner, while her husband, played by John Murnane as properly pompous, but a little stiff, clicks his tongue when she pauses for breath, but never raises his eyes from his newspaper.

The Martins arrive for the dinner that is over and the Smiths disappear, leaving Mr. and Mrs. Martin, played by Ivy Dreizin '70 and Steve Morx, to try and discover where they have met before. After innumerable "that is curious, how very bizarre and what a coincidences" on both sides, they discover that they live in the same room and sleep in the same bed, so "perhaps it is there we have met" says Martin cheerfully. Ivy Dreizin played Mrs. Martin with delightful sweetness and delicacy, and Steve Morx was good as her husband.

The Smiths' maid, Elizabeth Gray '70, was not quite bizarre enough to be really funny. She had her moments — "I bought me a chamber-pot", in an aside to the audience -- but she was a little too inconsistent in he rs effective as the part allows. Roger Burbaby, as the Fire Chief, was not convinced enough of his right to be a part of the Smiths' evening, but he managed to reel off the phenomenal list of names and relationships of the 'hundredth speech' impressively.

On the whole, The Bald Soprano was fun to watch a lively production, well acted and imaginatively directed. The same cannot be said, though, of The Chairs. In spite of excellent acting by both Nancy Young '69 and John Murnane as the old couple, Ionesco's tragic farce failed to keep the audience's attention.

The plot is simple two old people gathered in their lighthouse home go back over their past. The old man has accomplished very little; though gifted, he "had no ambition" and never rose above the title "general factotum." His one hope of immortality is his "message" — "I have a message to communicate to humanity, to mankind. The world is waiting for it, the universe is waiting for it." Imaginary people begin to arrive at the lighthouse to hear the message delivered and the old couple bring more and more chairs on to the stage to accommodate their audience. Finally, even the Emperor appears - and all wait for the Orator who is to read the Old Man's words. He finally arrives, and the two old people commit suicide from the lighthouse windows, leaving the audience to hear the Orator but fortunately, he is dumb, and makes only a few meaningless sounds; the message is never heard.

The play makes its points quite quickly, but they are labored, probed and reiterated with little added, until the audience just loses interest in what the characters have to say. There were striking moments the opening ten minutes, the arrivals of the first few characters, and the last five minutes — but these were just not enough to hold together the long, repetitious stretches of superfluous dialogue. The Chairs is simply too long, and nothing that Nancy Young or John Murnane could do in the way of variation of tone could prevent the dialogue from becoming tedious.

Statistics Indicate Pass-Fail Usage

This semester forty-six per cent of Wellesley's students have elected one or two units on the pass-fail system. However, six percent of the students are taking courses which are always graded pass-fail. These courses are studio art, writing workshops and 365 (Honors Study).

Of the 396 students in the senior class, 248 (63%) are participating in the pass-fail system, 41% of the freshmen class, 46% of the sophomore class and 34% of the junior class are taking a course without a letter grade.

The largest number of pass-fail courses were elected in mathematics and science. Out of 687 students, 241 (35%) are taking a science or mathematics course on the pass-fail system. There are 34 sophomores who have elected Bible 104 as a pass-fail course. In the freshmen class, 51 students have decided against a letter grade in English 100.

Jefferson Airplane: Flying High

by Chris Franz '69

Jefferson Airplane has a new album in the wings, hanging somewhere out of sight in the regions of Limbo. It was conceived by the minds of Marty Balin, Jorma Kaukonen, Grace Slick, Paul Kantner, Jack Casady, and Spencer Dryden. The gestation period was painstaking and perfectionistic, with the embryonic album nurtured along by TLC technical skill through the late spring and summer months. Now, birth is imminent and we will only for the finished product from RCA.

Through the kindness of Airplane road manager Bill Thompson, I was able to observe one phase of the developmental process. So, one night in early September, I trundled up to the RCA building on Sunset Avenue and crept into the Airplane recording studio. The recording room was a small box packed, cubicle-tightly with recording equipment and half a score of sound technicians and Airplane affiliates. One wall of the room was glass and peered into the cavernous sound studio on the other side of the wall. The sound studio contained members of the Airplane interspersed with mikes and equipment and screens dividing the space. The contents were exhibited in a dim expanse, lit sketchily by a Christmas tree of colored lightbulbs and a candle in an opaque jar.

The Play's the Thing

When I entered the room the Airplane was involved in the instrumentation to a piece which was then tagged only by a phrase from its lyrics: "Understanding Is A Virtue." Over the connecting sound system, a technician announced "Take-30." The Airplane hovered, poised in the silence, contemplating their solitude, and then exploded suddenly, shattering the shell of silence with shafts of splattered sound.

Off in the corner, under a huge umbrella-like framework, Spencer hunched his drums, looking like a slighter wisp of George Harrison, complete with scraggly mop and mustache. The three guitarists were gathered abstractly in a circle with their amplifiers around a cluster of mikes, doing their individual things, acting and reacting to their music as it took shapes. Jorma stood like a gaunt scarecrow, jerking and dipping convulsively, painfully extorting the notes from his guitar. Paul worked with feverish intensity, fingering a complex pattern on his strings, at an almost mechanical speed. Jack toiled coolly, impertinently, smiling in his own world, as he played fuzz tone on his bass. Throughout this all the music swelled and burst in waves of sound, throbbing with mounting fervor, until at its peak it suddenly collapsed, vanished, disintegrated into serene nothingness

zapping observers into spell-shocked transfixion.

Rehearsal Hall

Grace, who was not in this segment, now materialized from the shadows of a further recess of the sound studio, where she had been slumped in a metal chair in front of an enormous — electrified, I presume — grand piano. She was wearing a purple-striped tunic skirt over pumpkin-colored slacks, the whole outfit seeming to give visible evidence to the Indian influence which one had felt Ganges-like beneath the surging surface of the previous song.

Marty had been in the recording room supervising the taping with the technical staff during this session. As the others filed in from the sound studio, he mulled dejectedly over a police report of a concert they had done in Bakersfield earlier in the week. The police had interrupted the concert because of some dancing in the aisles, and when the kids protested, the police had announced that the concert was over, whereupon the kids rioted against the police. And since the Airplane had refused to leave the stage, the police were charging the group with "inciting a riot". Marty just kept reading it incredulously, with dismay and disbelief on his face.

Meanwhile the technicians had prepared to play back the tape. Jack climbed on top of a coffee table, the better to hear the quadruple-speaker complex a few feet away. The room stood rapt in silence listening to the music. The participants reacted to the replay as to a doctor's probings of a sensitive spot after an operation. When something came over well, they relaxed and joined into the group and enjoyed it, but if something failed they lightened up with displeasure and withdrew back into themselves for self-criticism.

"Bathing at Baxter's"

During a later "noise break" from recording, Mr. Thompson commented on the material to be included in the new album and on other coming events. As it looked then, the album would contain: "The Ballad of You and Me and Pooneil" (Paul) — a lengthened version, integrated perhaps with live tapes from the Fillmore; "Two Heads" (Grace) — also lengthened, and remastered (master tape); "The Young Girl or Young Kunk Sunday Blues" (Marty); "Martha" or "No Paper Clouds Give Green Apples" (Paul); "Watch Her Ride" (Grace) — based on Joyce's Ulysses; and the afore-described piece known only as "Understanding Is A Virtue", which I believe is now labeled "Follow Me" (Paul). Incidentally, the name "Pooneil" is a contraction of Pooh Winnie-the-, by A. A. Milne) and Freddie Neil (a very lushie blues-writer and singer. When John Lennon was last in Hollywood, he asked Capitol Records only for Freddie Neil's album), both of whom Paul Kantner admires very much.

As for coming events, there are many vague possibilities. The Airplane would definitely visit New York—and has. While there, they might rent a whole Broadway theater like the Wintergarden for a gigantic one-night's-stand. An Ed Sullivan Show appearance loomed as a possibility; also a Perry Como Show. A program spectacular on the Monterey Pop Festival, which included the Airplane, was to have been televised in October (was it?). There is also the chance that the Airplane may write the film score for a Fellini-type movie. Any plans for coming to Boston again were still up in the air and uncertain at the time.

Regarding "After Bathing at Baxter's" — that's to be the name of the new album, naturally (Thank you, Crawdaddy!), which is also to include a fold-out jacket designed by cartoonist Ron Cobb. Out in the parking lot Peter Tork was playing baseball with the sound technicians. If a Monkee can learn to fly, then Sergeant Pepper will make the world safe for life, liberty, and the pursuit of happiness.

Senate . . .

(Continued from page 1)

groups are allowed to collect dues, SOFC was asked to investigate and report at the next Senate meeting, Nov. 15.

Belle Huang '68, College Government president, submitted an addition to the agenda, in which she asked Senate to consider giving support to a College referendum on Vietnam. Acting as an individual, she has agreed to coordinate a referendum at Wellesley using a questionnaire drawn up by a group at Harvard students.

Origin of Questionnaire

The Harvard questionnaire came as a response to the recent incident with the Dow Chemical Company representatives. It is not affiliated with any particular political organization. Twenty-four colleges and universities in the New England area will hold referenda on Nov. 16 and 17.

At Wellesley, SDS has also been planning to hold a referendum. Senate reaffirmed its approval of free expression of opinion by any campus group. As a body, however, it denied support a referendum on matters outside Senate's jurisdiction.

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